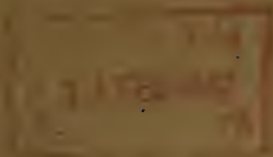
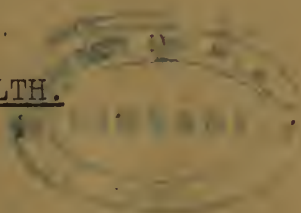


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GRANGE-OVER-SANDS URBAN DISTRICT COUNCIL.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.



1945.

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Grange-over-Sands Urban District Council.

Annual Report of the Medical Officer of Health.

1945.

Gentlemen,

I have the honour to present the Annual Report for 1945 on the sanitary circumstances, administration and vital statistics of your district.

Statistics for 1945.

Area of District.	1884 acres.
Population.	2,578.
Number of inhabited houses.	818.
Rateable Value.	£27,006.
Amount produced by a penny rate.	£110.

Vital Statistics.

BIRTHS.

There were 18 births, 9 male and 9 female, giving a birth rate of 6.9 per 1,000. Two of the births were of illegitimate children.

DEATHS.

Forty deaths of residents were registered giving a death rate of 15.4 per 1,000, compared with a rate of 16.3 per 1,000 for 1944.

Causes of Death.

Infantile Mortality, i.e. deaths of infants under one year of age, - none.

Deaths from Diarrhoea and Enteritis under 2 years of age, - none.

Maternal Mortality, - none.

Infectious Diseases, other than Tuberculosis, - none.

Pulmonary Tuberculosis, Two.

Diseases of the Heart and Blood Vessels, of the 22 deaths certified as having been caused by these diseases, 9 were ascribed to diseases of the heart, 5 to Arterio-sclerosis, 4 to Cerebral Haemorrhage, 3 to Cerebral Thrombosis and 1 to Cerebral Embolism.

Diseases of the Respiratory System, - none.

Cancer, There were 6 deaths from cancer.

Other Causes of Death were, Uracmia 1; Diabetes Mellitus 1; Pulmonary Oedema 1; Influenza 1; Accidental Death 1; Silicosis 1; General Peritonitis 1; Gangrene 1; Hypertension 1; Banti's Disease 1.

The Age Periods at Which Deaths occurred were,

	Male.	Female.	Total.
Under 1 year.	-	-	-
Between 1 and 65.	9	4	13
65 and upwards.	8	19	27
	<u>17</u>	<u>23</u>	<u>40</u>



## Infectious Diseases.

Incidence of Infectious Disease During the Five Years 1940-1944, compared with that for 1945.

Disease.	1940	1941	1942	1943	1944	1945.		
						No. of cases.	Removed to Hospital.	Died in Hospital.
Scarlet Fever.	1	1	11	2	8	2	-	-
Measles.	1	14	14	13	23	82	-	-
Whooping Cough.	2	30	1	-	30	4	-	-
Pneumonia.	1	2	3	5	2	-	-	-
Puerperal Fever and Pyrexia.	-	-	1	-	1	-	-	-
Dysentery.	-	-	-	13	-	3	-	-
TOTALS	5	47	30	33	64	91	-	-

### Diphtheria Immunisation.

During 1945 a total of 18 children completed the full course of immunisation, namely, 10 under 5 years of age and 8 over 5 years of age. No cases of diphtheria were notified, in immunised children, in the whole Ulverston Combined Sanitary District.

### Laboratory Work.

Bacteriological investigation continue to be carried out, on behalf of the Council, at the Ministry of Health Emergency Pathological Service Laboratory at the High Carley Sanatorium.

### Tuberculosis.

No new cases of tuberculosis were notified during the year, and no deaths of patients suffering from tuberculosis, who were ordinarily resident in the district, were notified.

### Sanitary Supervision.

During the year under review Mr. Huddleston carried out part time duties as Sanitary Inspector and the work undertaken by him may be summarised as follows:-

Informal notices issued	9	
House drains repaired and cleansed	5	
Water Closets repaired.	1	
Dairies and Cowsheds Inspections.	24	
New Dairies constructed.	2	
School milk samples taken.	3	
Offensive trade inspections.	4	
Nuisances from pig keeping.	2	
Food unfit for sale.		A small quantity of various tinned and prepared foods.
Factory		W.C. Accommodation checked at request of Factory Inspector.

### Public Cleansing.

The removal of house refuse is undertaken by the Council and the disposal thereof is by an incinerator. The following salvage has been collected and disposed of for national use.





Material.	Weight.	Income.
Waste Paper.	17 tons 17 cwt. 3 qrs.	£75. 18. 0.
Scrap Metals.	-	£6. 17. 0.
Tins.	5 tons 9 cwts.	£10. 7. 1.
Rags.	-	£4. 15. 0.
Bottles.	-	£3. 0. 0.

#### Sewerage and Drainage.

Sewerage and rainwater are dealt with on the combined system and no complaints have been received during the year.

#### Rainfall.

Year.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.
1933	12.01	7.91	8.42	8.90	37.24
1934	10.86	13.20	14.89	16.57	55.52
1935	10.63	12.54	17.21	18.80	59.18
1936	12.12	6.94	15.94	18.43	53.43
1937	12.69	9.39	11.47	8.59	42.14
1938	11.21	11.33	15.88	24.05	62.47
1939	13.17	8.20	13.62	13.19	48.18
1940	9.16	5.35	12.54	17.61	44.66
1941	9.68	6.69	9.78	13.93	40.08
1942	8.12	7.89	17.08	14.50	47.59
1943	12.55	12.36	19.72	13.30	57.93
1944	8.61	10.90	16.22	20.33	56.06
1945	13.32	10.80	10.20	10.39	44.71
Average for 35 years.	12.36	9.56	15.02	16.49	54.44ins.
Average of four consecutive driest years 1939.1942.	10.0325	7.0325	13.2550	14.8075.	45.1275ins.

#### Water Supply.

Grange is supplied with upland surface water derived from open moorland at an elevation of from 580 to 800 feet above O.D. grazed almost entirely by sheep. None of the land is cultivated. The water works supply not only the Urban District of Grange but also Newton, Lindale and the Cartmel Valley area of the adjoining Ulverston Rural District.

#### Chemical Analysis.

Sample of water received from Grange Urban District Council on the 25th May, 1945.

#### PHYSICAL EXAMINATION.

Colour.....Faint Brown  
Turbidity.....Nil.  
Taste.....Faint earthy.  
Smell.....Nil  
Reaction pH.....7.4.

#### CHEMICAL EXAMINATION:

Parts per 1000,000.  
Free and saline ammonia.....0.0024.  
Albuminoid Ammonia.....0.0100.  
Nitrites.....Nil.  
Nitrates.....0.075.





	Parts per 100.000.
Chlorine.....	1.50
Equal to Sodium Chloride.....	2.46
Oxygen consumed 15mins.....	0.087
" " 4 hours.....	0.180
Total Hardness (CaCO <sub>3</sub> ).....	4.57
Total Solids.....	8.56

#### BACTERIOLOGICAL EXAMINATION.

Sample taken from main in Kents Bank Road, Grange.

Plate Count. Yeasterel Agar 3 days 22°C aerobically 28 per ml.  
 " " " " 2 days 37°C " 15 per ml.

Probable number of coliform bacilli, MacConkey 2 days 37°C. 0 per ml

#### REMARKS.

No faecal coli.

Throughout the year the supply of water appears to have been well maintained and no shortage occurred.

#### Dairies and Cowsheds.

During the year under review two new cowsheds have been constructed.

#### Housing.

The Council have given consideration to the housing requirements of the district and negotiations are proceeding for the acquisition of the necessary land to commence their housing programme.

I am, Mr. Chairman and Gentlemen,

Yours obediently,

JAMES ROBERTSON.

Medical Officer of Health.

The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) for arbitrary values of the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$ .

In the second part, we consider the case when the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$  are given by the formulas (2).

In the third part, we consider the case when the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$  are given by the formulas (3).

In the fourth part, we consider the case when the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$  are given by the formulas (4).

In the fifth part, we consider the case when the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$  are given by the formulas (5).

In the sixth part, we consider the case when the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$  are given by the formulas (6).

In the seventh part, we consider the case when the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$  are given by the formulas (7).

In the eighth part, we consider the case when the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$  are given by the formulas (8).

In the ninth part, we consider the case when the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$  are given by the formulas (9).

In the tenth part, we consider the case when the parameters  $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega, \varphi$  are given by the formulas (10).



